

IN THE CLAIMS:

1. (original) An apparatus, comprising,
a substrate having a surface;
an organic field-effect transistor located adjacent said surface of said substrate, said transistor comprising a gate, a channel, a source electrode, and a drain electrode; and
wherein said channel comprises a densified layer of organic molecules with conjugated multiple bonds, axes of said organic molecules being oriented substantially normal to said surface.

2. (original) The apparatus of claim 1, wherein said densified layer of organic molecules has a surface density of at least about 7 molecules/ nm^2 .

3. (original) The apparatus of claim 1, wherein said densified layer is defined by said organic molecules having an average separation of less than about 3.8 Angstroms.

4. (original) The apparatus of claim 1, wherein said densified layer is defined by said organic molecules having a uniform orientation that provides a polarization ratio of greater than about 1.

5. (original) The apparatus of claim 4, wherein said uniform orientation is substantially coincident in a direction of current flow between said source and drain electrodes.

6. (original) The apparatus of claim 1, wherein said substrate comprises an elastomer, wherein said elastomer has a glass transition temperature (T_g) of less than about 30°C.

7. (original) The apparatus of claim 6, wherein said elastomer is an alkyl-substituted polysiloxane.

8. (original) The apparatus as recited in Claim 6, wherein said organic molecules have substantially coplanar aromatic groups.

9. (original) The apparatus as recited in Claim 1, wherein said organic molecules are linear organic molecules.

10. (original) The apparatus as recited in Claim 1, wherein said organic molecules are covalently bonded to said surface.

11. (original) The apparatus as recited in Claim 1, wherein said channel has a field effect mobility of at least about $10^{-4} \text{ cm}^2 \text{ V}^{-1} \text{ s}^{-1}$.

Claims 12-20 (Canceled)

Respectfully submitted,

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Date: March 3, 2005

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